

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

NETLIST, INC.,

Plaintiff,

V.

SK HYNIX INC. and SK HYNIX
AMERICA INC.

Defendants.

Civil Action No. 6:20-cv-00525

JURY TRIAL DEMANDED

NETLIST, INC.'S COMPLAINT FOR PATENT INFRINGEMENT

Pursuant to Federal Rule of Civil Procedure 15(a)(1)(B), Plaintiff Netlist, Inc. (“Netlist” or “Plaintiff”) files this complaint for patent infringement (“Complaint”) and for jury trial against Defendants SK hynix, Inc. and SK hynix America Inc. (collectively “SK hynix” or “Defendants”). Netlist alleges as follows:

THE PARTIES

1. Plaintiff Netlist is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business at 175 Technology Drive, Suite 150, Irvine, California 92618.

2. Netlist is the owner by assignment of U.S. Patent No. 10,217,523 (“the ’523 patent”) (attached as Exhibit 1) (the “Asserted Patent”). This patent is essential to certain DDR4 memory module standards promulgated by the Joint Electron Device Engineering Council, or “JEDEC,” the standard-setting body for the microelectronics industry. The Asserted Patent is therefore “standard essential.”

3. On information and belief, Defendant SK hynix Inc. is a corporation organized and existing under the laws of the Republic of Korea (“Korea”), having a principal place of business at 2091, Gyeongchung-daero, Bubal-eup, Icheon-si, Gyeonggi-do, 17336, Korea. On information and belief, SK hynix Inc. is the worldwide parent corporation for Defendant SK hynix America Inc., and is responsible, either directly or indirectly through subsidiaries, for its infringing activities. References herein to the acts of SK hynix America Inc. should be understood to encompass such acts by SK hynix Inc.

4. On information and belief, Defendant SK hynix America Inc. is a corporation organized and existing under the laws of California, having a principal place of business at 3101 North 1st Street, San Jose, CA 95134, United States. On information and belief, Defendant SK hynix America Inc. is a wholly owned subsidiary of SK hynix Inc. and is a United States operating company for SK hynix Inc. On information and belief, Defendant SK hynix America Inc. provides support for sales, technical, and customer/client relationship operations, including the testing, certification, and qualification of the accused LRDIMM memory modules for use in customer server products.

5. SK hynix America Inc. is registered to do business in Texas.

6. On information and belief, SK hynix America Inc. maintains a registered agent for service of process within this District, The Prentice-Hall Corporation System, 211 E. 7th Street, Suite 620, Austin, TX 78701.

7. On information and belief, SK hynix America Inc. maintains one or more physical fixed places of business in Texas, including offices at 4201 West Parmer Lane Bldg. B, Suite 245, Austin, TX 78727, at which, as alleged below, personnel perform certain activities directly related to the products accused of infringement in this case.

8. Defendants place, have placed, or contributed to placing infringing products like Load Reduced Dual In-line Memory Modules (“LRDIMMs”)¹ into the stream of commerce via an established distribution channel knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas. On information and belief, Defendants have also derived substantial revenues from infringing acts in this District including from the sale and use of infringing LRDIMM products.

JURISDICTION AND VENUE

9. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code § 1, et seq. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10. This Court has specific personal jurisdiction over Defendants at least in part because Defendants conduct business in this Judicial District. Netlist’s causes of action arise, at least in part, from Defendants’ contacts with and activities in the State of Texas and this District. On information and belief, Defendants have committed acts of infringement within the State of Texas and this District by, among other things, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the ’523 patent.

11. On information and belief, Defendants conduct business in this District and maintain regular and established places of business within this District. For example, SK hynix America Inc. has maintained regular and established places of business with offices and/or other facilities in this District, including at least such offices and/or facilities at 4201 West Parmer Lane Bldg. B, Suite 245, Austin, TX 78727. On information and belief, personnel working at this facility in Austin engage in activities directly related to the LRDIMM products at issue in this case.

¹ The SK hynix HMA84GL7AMR4N-UHTE is an exemplary infringing LRDIMM product.

12. For example, on information and belief, personnel employed by SK hynix America Inc. working at this location are semiconductor professionals, including field application engineers, senior technical marketing managers, and senior quality managers. On information and belief, these personnel have expertise in, among other aspects of the accused products, semiconductors, application specific integrated circuits, embedded systems, and testing and qualification of computer memory modules. On information and belief, one of the Defendants' largest customers within the United States, Dell Technologies, is based in the Austin area, and many of the personnel working at the SK hynix America Inc. location in Austin direct their efforts to providing Dell with the accused products. These efforts include, on information and belief, extensive testing, certification, and qualification of the accused LRDIMM memory modules for specific use in Dell server products.

13. On information and belief, Defendants have placed or contributed to placing infringing products including, but not limited to, SK hynix LRDIMM products into the stream of commerce knowing or understanding that such products would be sold and used in the United States, including in this District. For example, apart from SK hynix America Inc.'s own activities within this District described above, SK hynix America Inc. also has a distributor—N.F. Smith & Associates, LP—with a location in this District. On information and belief, this distributor also sells SK hynix LRDIMM products into the stream of commerce within this District.²

14. On information and belief, SK hynix America Inc. has also derived substantial revenues from infringing acts in this District, including from the sale and use of infringing products including, but not limited to, SK hynix's LRDIMM products.

² See <https://www.skhynix.com/eng/support/distributor.jsp>; see also <https://www.smithweb.com/global-locations/>.

15. Defendants have committed acts within this District giving rise to this action, and have established sufficient minimum contacts with the State of Texas such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

16. Venue in this District is proper as to SK hynix Inc. under 28 U.S.C. § 1391(c)(3) because it is a foreign corporation. *In re HTC Corp.*, 889 F.3d 1349, 1354 (Fed. Cir. 2018).

17. Venue is proper in this District as to SK hynix America Inc. pursuant to 28 U.S.C. § 1391(b), (c), and 1400(b) because SK hynix America Inc. (1) has committed and continue to commit acts of patent infringement in this District by, among other things, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the '523 patent, and (2) has done and continue to do business in this District by maintaining regular and established places of business, including at least at 4201 West Parmer Lane Bldg. B, Suite 245, Austin, TX 78727. *In re Cray Inc.*, 871 F.3d 1355, 1362-63 (Fed. Cir. 2017).

FACTUAL BACKGROUND

18. Since its founding in 2000, Netlist has been a leading innovator in high-performance memory module technologies. Netlist designs and manufactures a wide variety of high-performance products for the cloud computing, virtualization and high-performance computing markets. Netlist's technology enables users to derive useful information from vast amounts of data in a shorter period of time. These capabilities will become increasingly valuable as the volume of data continues to dramatically increase.

19. The technologies disclosed and claimed in the asserted patent relate generally to memory modules. Generally speaking, a memory module is a printed circuit board that contains, among other important components, DRAM integrated circuits. A memory module is typically installed into a memory slot on a computer motherboard and serves as memory for that computer

system. The '523 patent relates to memory subsystems and, more specifically, a self-testing architecture for memory modules.

20. The accused SK hynix DDR4 LRDIMM memory modules are designed for use in servers, such as those supporting cloud-based computing and other data-intensive applications. The structure, function, and operation of server memory modules like the accused devices is defined, specified, and standardized by JEDEC (Joint Electron Device Engineering Council), the standard-setting body for the microelectronics industry. The accused LRDIMMs are a type of memory module that is JEDEC-standard compliant. JEDEC released the second version of the standard for one of the important memory module components of LRDIMMs, the DDR4³ register control device, or RCD, in August of 2019.

21. Netlist “committed” the Asserted Patent to the relevant JEDEC standards pursuant to the JEDEC Patent Policy, which sets certain obligations for owners of patents (like the Asserted Patents) that are essential to one or more JEDEC standards. Netlist has in all respects and at all times acted in a manner consistent with the JEDEC Patent Policy, as set forth in the JEDEC Manual of Organization and Procedure, which states in relevant part that “[a] license will be offered, to applicants desiring to utilize the license for the purpose of implementing the JEDEC Standard under reasonable terms and conditions that are free of any unfair discrimination” Netlist contacted SK hynix in 2015 regarding its need for a license to Netlist’s essential patent portfolio and has since been negotiating in good faith to reach a resolution—but SK hynix still refuses to take a license to Netlist’s patents.

³ DDR4 refers to the latest generation of DRAM memory. Older, slower generations of memory modules used DDR3 DRAM; even older memory modules used DDR2 DRAM.

22. In the course of these negotiations, and years before bringing this action, Netlist offered to license to SK hynix, among other patents in its standard-essential portfolio, the direct parents of the currently-asserted patent under reasonable terms and conditions that are free of any unfair discrimination. Unfortunately, SK hynix has not acted as a willing licensee. From the beginning, SK hynix has taken unreasonable positions and refused to attribute any meaningful value to Netlist's fundamental patents. Faced with an intransigent infringer of its standard-essential patents, Netlist turned to litigation in order to obtain fair compensation for SK hynix's unauthorized use of its intellectual property, including in federal district court and at the International Trade Commission. In turn, SK hynix launched extensive collateral attacks on Netlist and its intellectual property, including filing multiple post-grant challenges to over a dozen of Netlist's standard-essential patents. As a result, the parties have made no progress towards resolution, despite multiple substantive exchanges, over many years of negotiation, and Netlist's multiple, reasonable offers to license.

23. In June 2016, consistent with its obligations under the JEDEC Patent Policy, Netlist sent SK hynix a formal letter outlining Netlist's offer to license Netlist's patent portfolio related to, among other technology, its LRDIMM technology on reasonable terms and conditions that are free of any discrimination. Netlist again identified the direct parents of the asserted patent, and informed SK hynix that their DDR4 LRDIMMs, among other relevant products, practice these patents (and additional of Netlist's standard essential patent ("SEP") assets) without authorization. Despite this, SK hynix has continued to hold out, and has refused to accept any of Netlist's reasonable and non-discriminatory offers for a license to its SEPs. Notably, the Chief Administrative Law Judge of the International Trade Commission has twice rejected SK hynix's allegations that Netlist violated its obligations under the JEDEC patent policy.

24. In parallel with its two International Trade Commission complaints, Netlist filed two federal district court complaints in the Central District of California,⁴ one in the fall of 2016 and the second a year later. After consolidation, those cases were stayed based on the co-pending action before the International Trade Commission. Those complaints asserted different patents from those asserted in this case and, prior to being stayed, no patent claims were construed by the court, and no meaningful discovery had been exchanged among the parties.

25. Each of the Defendants has been aware of the parents of the asserted patents since at least January 2016 when Netlist presented to the Defendants detailed claim charts related to the parent of the asserted patents. Further, each of the Defendants has been aware of the '523 patent since at least June 9, 2020, when Netlist provided Defendants with detailed claim charts describing how Defendants' LRDIMM products infringed claims of the '523 patent.

COUNT I

DEFENDANTS' INFRINGEMENT OF U.S. PATENT NO. 10,217,523

26. Netlist restates and incorporates by reference all of the allegations made in the preceding paragraphs as though fully set forth herein.

27. The '523 patent, entitled "Multi-mode memory module with data handlers," issued to inventors Dr. Hyun Lee, Jayesh R. Bhakta, and Soonju Choi on February 26, 2019. The '523 patent is a continuation of U.S. patent application Ser. No. 13/745,790, filed Jan. 19, 2013, now U.S. Pat. No. 8,689,064 ("the '064 patent"), which is a continuation of U.S. patent application Ser. No. 13/183,253, filed Jul. 14, 2011, now U.S. Pat. No. 8,359,501 ("the '501 patent"), which is a continuation of U.S. patent application Ser. No. 12/422,925, filed Apr. 13, 2009, now U.S. Pat.

⁴ Defendants do not appear to have any employees or physical presence in the Central District of California.

No. 8,001,434 (“the ’434 patent”). Netlist owns by assignment the entire right, title and interest in and to the ’523 patent. The ’523 patent is essential to the JEDEC DDR4 LRDIMM standard. Netlist committed the ’523 patent to these standards pursuant to the JEDEC Patent Policy and has, at all times, observed and adhered to its obligations under this policy.

28. On information and belief, Defendants directly infringed and are currently infringing at least the independent and dependent claims of the ’523 patent identified in the chart below (“the ’523 Asserted Claims”) by, among other things, making, using, selling, offering to sell, and/or importing within this District and elsewhere in the United States, without authority, the accused LRDIMM products.

’523 Independent Claims	’523 Dependent Claims
1	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
19	20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34

29. An exemplary claim chart comparing the asserted independent claims of the ’523 patent to an exemplary accused LRDIMM product (part number HMA84GL7AMR4N-UHTE) is attached as Exhibit 2.⁵

⁵ This claim chart is exemplary, and is based on relevant information presently within Netlist’s possession, custody, or control. Netlist expressly reserves the right to amend, modify and/or supplement this exemplary disclosure as new information, documents, source code, testimony, or knowledge come to light, whether received from Defendants or non-parties. Further, Netlist expressly reserves the right to amend, modify and/or supplement this exemplary disclosure by identifying, charting, and relying on additional information that describes the disclosures and information already contained within these exemplary disclosures. Further, Netlist reserves the right to supplement this exemplary disclosure as this case proceeds, including, but not limited, following any *Markman* order in this case. The Asserted Claims have not been construed, and nothing contained in this exemplary disclosure is an express or implied admission with respect to the proper construction of the Asserted Claims, or any issue relating to any alleged invalidity of such claims.

30. On information and belief, each of Defendants has been aware of the '064, '501, and '434 patents, the parent patents of the '523 patent, and the patents' disclosures, since at least January 2016. Defendants have been specifically aware of the '523 patent since at least as early as June 9, 2020.

31. As a result of Defendants' infringement of at least the '523 Asserted Claims, Netlist has suffered and is continuing to suffer monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendants' past infringement. Netlist is also entitled to enhanced damages, attorneys' fees, interest, and costs due to Defendants' willful, egregious, wanton, deliberate and flagrant conduct with regard to Netlist's patent rights.

32. Defendants also indirectly infringed, and are currently infringing, the '523 Asserted Claims. In particular, on information and belief, users making routine use of the accused LRDIMM products infringe at least the '523 Asserted Claims. On information and belief, each of the Defendants has induced, and currently induces, the infringement of the '523 patent. For example, each of Defendants was aware that the accused LRDIMM products infringe at least the '523 Asserted Claims, and was aware that users making routine use of the accused LRDIMM products infringe those claims. On information and belief, each of Defendants specifically intended that users of the accused LRDIMM products infringe at least the '523 Asserted Claims, and acted with the intent of causing the infringing acts, including the infringing routine use of the accused LRDIMM products by users. For example, on information and belief, Defendants provide specifications, datasheets, instruction manuals, and/or other materials that encourage and facilitate infringing use of the accused LRDIMM products by users with the intent of inducing infringement. *See, e.g.*, Exhibits 3 and 4.

33. On information and belief, each of Defendants has contributed, and currently contributes to, the infringement of at least the '523 Asserted Claims, including the infringing routine use of the accused LRDIMM products by users. On information and belief, Defendants have sold, offered for sale and/or imported within the United States the accused LRDIMM products for use in an infringing manner. On information and belief, the accused LRDIMM products have no substantial noninfringing use, and constitute a material part of the patented invention. On information and belief, Defendants are aware that the product or process that includes the accused LRDIMM products may be covered by one or more of the '523 Asserted Claims or may satisfy one or more of the '523 Asserted Claims under the doctrine of equivalents. On information and belief, the use of the product or process that includes the accused LRDIMM products infringes at least the '523 Asserted Claims.

34. Defendants have committed these acts of direct and indirect infringement with knowledge of the '523 Asserted Claims and thus have acted with willful, egregious, wanton, deliberate, and flagrant disregard for Netlist's rights in the '523 patent.

35. As a result of Defendants' direct, indirect, and willful infringement of the '523 Asserted Claims, Netlist has suffered and is continuing to suffer monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendants' past infringement. Netlist is also entitled to enhanced damages, attorneys' fees, interest, and costs due to Defendants' willful, egregious, wanton, deliberate, and flagrant conduct with regard to Netlist's patent rights.

PRAYER FOR RELIEF

WHEREFORE, Netlist respectfully requests that judgment be entered:

A. Declaring that Defendants have infringed and are infringing, directly and indirectly, the claims of the asserted patent;

B. Compensating Netlist for all damages caused by Defendants' infringement of the asserted patent;

C. Ordering Defendants to account for and pay damages caused to Netlist by Defendants' unlawful acts of patent infringement;

D. Entering judgment that Defendants' acts of patent infringement are willful, egregious, wanton, deliberate, and flagrant conduct and enhancing Netlist's damages up to three times their amount under 35 U.S.C. § 284;

E. Granting Netlist pre- and post-judgment interests, together with all costs and expenses;

F. Granting Netlist its reasonable attorneys' fees under 35 U.S.C. § 285;

G. Awarding such other relief as this Court may deem just and proper.

DEMAND FOR JURY TRIAL

Plaintiff demands a jury trial for all issues deemed to be triable by a jury.

Dated: June 15, 2020

/s/ Andrew H. DeVoogd

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